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REMARKS

Claims 1-22 are pending in this application.

Claims 1-22 are rejected.

The office action dated November 2, 2005 indicates that claims 1-22 are rejected under 35 USC §102(b) as being anticipated by Giorgianni U.S. Patent No. 5,956,044. This rejection is respectfully traversed.

Claim 1 has been amended for clarity. Amended claim 1 recites an apparatus for calibrating an image output device. The apparatus includes a test pattern generator for generating a test pattern including a dynamic test patch area and a grating area. The test pattern is supplied to the image output device, which outputs the test pattern.

The apparatus further includes an image input device for creating an image of the outputted test pattern. The test pattern generator uses the image to adjust an intensity level of the dynamic test patch area to match an average intensity level of the grating area in the test pattern.

Although claim 1 does not recite it, the method can be used to generate a gamma function. The gamma function can be used to improve color fidelity of an image output device (e.g., a CRT monitor) so that colors in an output image are represented accurately. This feature is recited in claim 11.

Giorgianni discloses an image color encoding method that purportedly "achieves compatibility for disparate image media" used for input, output, etc. (col. 1, lines 33-40; and col. 5, lines 28-35). Giorgianni's method can also purportedly

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produce "calimetrically specified colors on any output device and/or medium" (col. 5, lines 35-37).

Giorgianni's method includes generating a reference viewing environment as a function of surround, adaptive white point, and viewing flare (col. 8, line 63 to col. 9, line 14). These parameters relate to background illumination. "The reference viewing environment need not correspond to any actual environment" (col. 8, lines 63-64).

Giorgianni's method further includes generating a set of test images with a pattern generator (col. 9, lines 28-36), and creating (e.g., printing) test images of the test patterns (lines 36-44). The test images include specified arrays of colors on a medium. Digital images are produced from the test images (col. 10, lines 47-49), and transforms are derived. The transforms convert the digital images (i.e., image bearing signals) "to the surround associated with the reference viewing environment" (col. 9, lines 21-27). The transforms are subsequently used to transform a set of input images to Database Color Encoding values (col. 10, lines 53-56).

Giorgianni does not teach or suggest a test pattern that includes a grating area having an average illumination. Giorgianni's figure 2 simply shows an array of spaced-apart colors. The human visual system perceives the array as a set of distinct colors, not an average color (e.g., a single shade of gray).

Giorgianni does not teach or suggest adjusting the intensity level of any colors in the test pattern. It follows that Giorgianni does not teach or suggesting the intensity level until the intensity level of the test patch matches the average

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intensity of the grating. Giorgianni generates a mathematical transform that relates a test image to a reference viewing environment.

The office action alleges that the test images 46 constitute the test patch area. However, Giorgianni does not teach or suggest that the intensity of the colors in the test images 46 is adjusted. Moreover, Figure 2 does not show a test image 46 having a grating with an average illumination.

The office action also cites col. 5, lines 40-46, col. 10, 47-53, and Figure 6-7. The passage at col. 10, lines 47-52, which is discussed above, clearly states that a test image is converted to digital form (into an image-bearing signal), and a transform is derived so that color encoded values are compatible with the reference viewing environment. This passage says nothing about changing intensity of color values in the image-bearing signal.

The passage at col. 5, lines 40-46 describes the reference viewing environment. Figures 6 shows a test image 46 with a pattern of distinct colors. Figure 7 simply shows that the transforms are applied to on an image bearing signal.

Giorgianni does not teach or suggest adjusting the intensity of a test patch to match the average illumination of a test grating. Giorgianni does not teach or suggest a test pattern including both a dynamic test patch and a grating. Therefore, claim 1 and its dependent claims 2-16 should be allowed over Giorgianni.

Claims 2-3, 8, 10, 12-13 and 16 have been amended to depend properly

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from claim 1.

Base claim 17 has also been amended. Base claim 17 and its dependent claims 18-21 should be allowed for the reasons above.

Base claim 22 has not been amended, but should be allowed for the reasons above. Giorgianni does not teach or suggest a test pattern generator that generates the test pattern recited in claim 22. If the examiner maintains that Giorgianni's element 40 shows the test pattern generator of claim 22, he is respectfully requested to identify the test pattern that it generates (for example, by citing a passage in the specification or by identifying an element in the drawings). Moreover, the examiner is respectfully requested to identify the portion of the test pattern that constitutes the dynamic test patch, the portion that constitutes the grating, and the portion that constitutes the fixed level areas. For example, if the examiner maintains that test images 46 contain test patterns, the examiner is respectfully requested to cite those passages in Giorgianni that describe the dynamic test patch and the grating. Thus far, the examiner has simply made a bald conclusion of obviousness. He has not provided any evidence of prima facie obviousness of claim 22 (or any of the other claims 1-21).

The office action objects to Figure 1 because a leader line for element 101 allegedly points to an open space. This objection is respectfully traversed. The leader line doesn't point to an empty space, it points toward a test pattern 101 that includes a fixed level area 102, a dynamic test patch area 103, and a grating area 104. Although the leader line doesn't point directly to the test pattern 101, the specification makes it quite clear that the test pattern is being referenced by numeral 101.

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The examiner is respectfully requested to withdraw the rejections of the claims and issue a notice of allowability. The examiner is encouraged to contact applicant's attorney Hugh Gortler to discuss any issues that might remain.